

SEQUENCE LISTING

5 <110> HEINRICHS, VOLKER
CHEN, TEDDY
PATTEN, PHILLIP A.

<120> IFN-ALPHA HOMOLOGUES

10 <130> 02-101510/0140.002

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<151> 1999-10-07

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gaggagtgtg atggcaacca gttccagaag gctcaagcca tctctgtcct ccatgagatg 180

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40 <213> Artificial Sequence

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50 gaggagtttg atggcaaccg gttccagaag gctcaagcca tctctgtcct ccatgagatg 180
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<220>
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 atacaggagg ttgggggtgga agagaccccc ctgatgaatg tggactccat cctggctgtg 360
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 10 <213> Artificial Sequence

<220>
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 <223> Clone ID 2BA8

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 25 aggaagtact tccaaaagaat cactctttat ctaatagaga ggaataacag cccttgtgca 420
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30 <210> 12
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35 <220>
 <223> Description of Artificial Sequence: Synthetic DNA

<220>
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50 <210> 13
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55 <220>
 <223> Description of Artificial Sequence: Synthetic DNA

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<223> Clone ID 4BE10

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<212> DNA

<213> Artificial Sequence

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20 <223> Description of Artificial Sequence: Synthetic DNA

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<223> Clone ID 2DD9

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35 agattaagga ggaaggaa 498

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<212> DNA

<213> Artificial Sequence

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40 <223> Description of Artificial Sequence: Synthetic DNA

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45 <223> Clone ID 3CA1

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atacaggagg ttgggggtgga agagactccc ctgatgaatg aggaactcat cctggctgtg 360
aagaaatact tccaaagaat cactctttat ctgacagaga agaagtatag cccttgttcc 420
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atacaggagg ttgggatgga agagactccc ctgatgaatg tggactccat cctggctgtg 360
 aggaagtact tccaaagaat cactctttat ctaatagaga ggaataacag cccttgtgcc 420
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 atacaggagg ttgggatgga agagactccc ctgatgaatg aggaactccat cctggctgtg 360
 aagaataact tccaaagaat cactctttat ctgatggaga agaaatacag cccttgtgcc 420
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<220>
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<220>
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 ctctagaaaa aattttccac tgaactttac cagcaactga atgacctgga agcatgtgtg 300
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 aggaataact tccaaagaat cactctttat ctgacaaaaga agaagtatag cccttgttcc 420
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 gaggtgtttg atggcaacca gttccagaag gcccaagcca tctctgcctt ccatgagatg 180
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 atacaggagg ttgggggtgga agagactccc ctgatgaatg aggaactccat cctggctgtg 360
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 <220>
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 20 <220>
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 30 atacaggagg ttgggggtgga agagactccc ctgatgaatg aggaactccat cctggctgtg 360
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 35 <210> 23
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 gaggagtttg atggcaacca gttccagaag gctcaagcca tctctgtctt ccatgagatg 180
 50 atccagcaga ccttcaatct ctccagcaca aaggactcat ctgctacttg ggaacagagc 240
 ctccatagaaa aattttccac tgaacttaac cagcagctga atgacctgga agcctgcgtg 300
 atacaggagg ctgggggtgga agagactccc ctgatgaatg tggactccat cctggctgtg 360
 aagaaatact ttcaagaat cactctttat ctaacagaga agaataacag ccttgtgtgc 420
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<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic DNA

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<223> Clone ID 2A10

<400> 24

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gagggtgtttg atggcaacca gtccacagaag gctcaagcca tctctgcctt ccatgagatg 180
atccagcaga ccttcaatct ctccagcaca aaggactcat ctgctacttg ggaacagagc 240
ctcctagaaa aattttccac tgaactttac cagcaactga ataactctga agcatgtgtg 300
atacaggagg ttgggggtgga agagactccc ctgatgaatg aggaactccat cctggctgtg 360
aggaataact ttcaagaat cactctttat ctgatggaga agaaatacag cccttgtgcc 420
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<210> 25

<211> 498

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic DNA

<220>

<223> Clone ID 2C3

<400> 25

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gaggagtttg atggcaacca gtccacagaag gctcaagcca tctctgtcct ccatgagatg 180
atccagcaga ccttcaatct ctccagcaca aaggactcat ctgatacttg ggatgcgacc 240
cttttagaaa aattttccac tgaacttaac cagcagctga atgactctga agcctgcgtg 300
atacaggagg ttgggggtgga agagaccccc ctgatgaatg tggactccat cctggctgtg 360
aagaaatact tccaaagaat cactctttat ctgacagaga agaaatacag cccttgtgcc 420
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<210> 26

<211> 498

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic DNA

<220>

<223> Clone ID 2D1

<400> 26

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gaggagtttg atggcaaccg gtccacagaag gctcaagcca tctctgtcct ccatgagatg 180
atccagcaga ccttcaatct ctccagcaca aagaactcat ctgctgcttg ggaacagagc 240
ctcctagaaa aattttccac tgaactctac cagcagctga atgactctga agcctgcgtg 300
atacaggagg ttgggggtgga agagaccccc ctgatgaatg aggaactccat cctggctgtg 360
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aagaaatact tccaaagaat cactctttat ctaatagaga ggaatacag cccttgtgca 420
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 agattaagga ggaaggaa 498

- 5 <210> 27
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- 10 <220>
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<220>
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 gaggagtttg atggcaacca gttccagaag gctcaagcca tctctgcctt ccatgatgatg 180
 20 atccagcaga ccttcaatct cttcagcaca aaggactcat ctgctacttg ggaacagagc 240
 ctctagaaaa aattttccac tgaactttac cagcaactga ataacttgga agcctgcgtg 300
 atacaggagg ttggggtgga agagactccc ctgatgaatg tggactccat cctggctgtg 360
 aagaaatact tccgaagaat cactctctat ctgacagaga agaatacag cccttgtgcc 420
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 25 agattaagga ggaaggaa 498

- <210> 28
 <211> 498
 <212> DNA
 30 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic DNA

- 35 <220>
 <223> Clone ID 2D7

- <400> 28
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 40 gaggagtttg atggcaacca gttccagaag gctcaagcca tctctgtcct ccatgatgatg 180
 atccagcaga ccttcaatct cttcagcaca aaggactcat ctgctacttg ggaacagagc 240
 ctctagaaaa aattttccac tgaactttac cagcaactga ataacttgga agcctgcgtg 300
 atacaggagg ttggggtgga agagactccc ctgatgaatg tggactctat cctggctgtg 360
 45 aagaaatact tccaaagaat cactctttat ctgacagaga ggaatacag cccttgtgcc 420
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 agattaagga ggaaggaa 498

- <210> 29
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 <212> DNA
 <213> Artificial Sequence

- <220>
 55 <223> Description of Artificial Sequence: Synthetic DNA

<220>
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 5 gaggagtttg atggcaacca gttccagaag gctcaagcca tctctgtcct ccatgagatg 180
 atccagcaga ctttcaatct cttcagcaca aaggactcat ctgctacttg ggaacagagc 240
 ctctagaaaa aattttccac tgaacttaac cagcagctga atgacctgga agcctgcgtg 300
 atacaggagg ttgggggtgga agagactccc ctgggtgaatg tggactccat cctggctgtg 360
 aagaaatact tccaaagaat cactctttat ctgacagaga agaaatacac cccttgtgcc 420
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 agattaagga ggaaggaa 498

<210> 30
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 <212> DNA
 15 <213> Artificial Sequence

<220>
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 20 <220>
 <223> Clone ID 2DA2

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 25 atgggaagaa tctctccttt ctctgcctg aaggacagac aggactttcg attccccag 120
 gaggagtttg atggcaacca gttccagaag gctcaagcca tctctgtcct ccatgagatg 180
 atgcagcaga ctttcaatct cttcagcaca aagaactcat ctgctgcttg ggaacagagc 240
 ctctagaaaa aattttccac tgaactccac cagcaactga atgaactgga agcatgtgtg 300
 30 atacaggagg ttgggggtgga agagactccc ctgatgaatg tggactccat cctggctgtg 360
 aagaaatact tccaaagaat cactctttat ctaatagaga ggaaatacac cccttgtgca 420
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 agattaagga ggaaggaa 498

<210> 31
 35 <211> 498
 <212> DNA
 <213> Artificial Sequence

<220>
 40 <223> Description of Artificial Sequence: Synthetic DNA
 <220>
 <223> Clone ID 2DH9

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 ggggagtttg atggcaacca gttccagaag gctcaagcca tctctgtcct ccatgagatg 180
 50 atgcagcaga ctttcaatct cttcagcaca aaggattcat ctgctgcttg ggaacagagc 240
 ctctagaaaa aattttccac tgaactctac cggcagctga atgacctgga agcctgtgtg 300
 atacaggagg ttgggggtgga agagaccccc ctgatgaatg tggactccat cctggctgtg 360
 aggaagtact tccaaagaat cactctttat ctgacagaga agaagcatag cccttgttcc 420
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 55 agattaagga ggaaggaa 498

<210> 32
 <211> 498
 <212> DNA
 <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic DNA

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<220>

<223> Clone ID 2G11

<400> 32

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atgggaagaa tctctccttt ctcctgcctg aaggacagac atgactttgg acttccccag 120
gaggagtttg atggcaacca gtccagaag actcaagcca tctctgtcct ccatgagatg 180
atccagcaga ccttcaatct cttcagcaca aaggactcat ctgatacttg ggaacagagc 240
ctcctagaaa aattctacat tgaacttttc cagcagctga atgacctgga agcctgcgtg 300
15 atacaggagg ttgggggtgga agagactccc ctgatgaatg tggactccat cctggctgtg 360
agaaaatact tccaaagaat cactctttat ctgacagagg agaaatacac cccttgtgcc 420
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agattaagga ggaaggaa 498

<210> 33

20 <211> 498

<212> DNA

<213> Artificial Sequence

<220>

25 <223> Description of Artificial Sequence: Synthetic DNA

<220>

<223> Clone ID 2G12

30

<400> 33

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atgcagcaga ccttcaatct cttcagcaca aagaactcat ctgctgcttg ggatgagacc 240
35 ctccatgaca aattctacac tgaactctac cagcagctga atgacttgga agcctgtgtg 300
atgcaggagg ggagggtggg agaaactccc ctgatgaatg cggactccat cttggctgtg 360
aagaaatact tccgaagaat cactctctat ctgacagaga agaaatacac cccttgtgcc 420
tgggaggctg tcagagcaga aatcatgaga tctttctctt tttaacaaa cttgcaaaaa 480
40 agattaagga ggaaggaa 498

<210> 34

<211> 498

<212> DNA

<213> Artificial Sequence

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<220>

<223> Description of Artificial Sequence: Synthetic DNA

<220>

50 <223> Clone ID 2H9

<400> 34

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gaggagtgtt atggcaacca gtccagaag gctcaagcca tctctgtcct ccatgagatg 180
atccagcaga ccttcaatct cttcagcaca aaggactcat ctgctacttg ggaacagagc 240
ctcctagaaa aattttccac tgaacttaac cagcagctga atgacctaga agcctgtgtg 300
acacaggagg ttgggggtgga agagactccc ctgatgaatg aggactctat cctggctgtg 360
aagaaatact tccaaagaat cactctttat ctgacagaga agaaatacac cccttgtgcc 420

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agattaagga ggaaggaa 498

<210> 35
<211> 498
<212> DNA
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<220>
<223> Description of Artificial Sequence: Synthetic DNA

<220>
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gaggaggttg atggcaacca gctccagaag gctcaagcca tctctgtcct ccatgagatg 180
atccagcaga ccttcaatct cttcagcaca aaggattcat ctgctgcttg ggaacagagc 240
ctctagaaaa aattttccac tgaacttaac cagcagctga atgacctgga agcctgcgtg 300
atacaggagg ttggagtggg agagactccc ctgatgaatg tggactccat cctggctgtg 360
aagaaatact tccaaagaat cactctttat ctgacagaga ggaataacag cccttgtgcc 420
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agattaagga ggaaggaa 498

<210> 36
<211> 166
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic amino acid

<220>
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20 25 30
Arg Gln Asp Phe Gly Phe Pro Gln Glu Glu Phe Asp Gly Asn Gln Phe
35 40 45
Gln Lys Ala Gln Ala Ile Ser Val Leu His Glu Met Ile Gln Gln Thr
50 55 60
Phe Asn Leu Phe Ser Thr Lys Asp Ser Ser Ala Ala Trp Glu Gln Thr
65 70 75 80
Leu Leu Glu Lys Phe Ser Thr Glu Leu Tyr Gln Gln Leu Asn Asp Leu
85 90 95
Glu Ala Cys Val Ile Gln Glu Val Gly Val Lys Glu Thr Pro Leu Met
100 105 110
Asn Val Asp Ser Ile Leu Ala Val Arg Lys Tyr Phe Gln Arg Ile Thr

115

120

125

Leu Tyr Leu Ile Glu Arg Lys Tyr Ser Pro Cys Ala Trp Glu Val Val
130 135 140

Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys
145 150 155 160

Arg Leu Arg Arg Lys Glu
165

<210> 37

<211> 166

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic amino acid

<220>

<223> Clone ID 2CA3

<400> 37

Cys Asp Leu Pro Gln Thr His Ser Leu Gly Asp Arg Arg Ala Met Ile
1 5 10 15

Leu Leu Ala Gln Met Gly Arg Ile Ser Pro Phe Ser Cys Leu Lys Asp
20 25 30

Arg Tyr Asp Phe Gly Phe Pro Gln Glu Glu Phe Asp Gly Asn Gln Phe
35 40 45

Gln Lys Ala Gln Ala Ile Ser Val Leu His Glu Met Ile Gln Gln Thr
50 55 60

Phe Asn Leu Phe Ser Thr Lys Asp Ser Ser Ala Ala Trp Glu Gln Ser
65 70 75 80

Leu Leu Glu Lys Phe Ser Thr Glu Leu Tyr Gln Gln Leu Asn Glu Leu
85 90 95

Glu Ala Cys Val Ile Gln Glu Val Gly Val Gly Glu Thr Pro Leu Met
100 105 110

Asn Gly Asp Ser Ile Leu Ala Val Lys Lys Tyr Phe Gln Arg Ile Thr
115 120 125

Leu Tyr Leu Ile Glu Arg Lys Tyr Ser Pro Cys Ala Trp Glu Val Val
130 135 140

Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys
145 150 155 160

Arg Leu Arg Arg Lys Glu
165

<210> 38

<211> 166
 <212> PRT
 <213> Artificial Sequence

5 <220>
 <223> Description of Artificial Sequence: Synthetic amino acid

<220>
 <223> Clone ID 4AB9

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 1 5 10 15

15 Leu Leu Ala Gln Met Gly Arg Ile Ser Pro Phe Ser Cys Leu Lys Asp
 20 25 30

Arg His Asp Phe Gly Phe Pro Arg Glu Glu Phe Asp Gly Asn Gln Phe
 35 40 45

20 Gln Lys Ala Gln Ala Ile Ser Val Leu His Glu Met Met Gln Gln Thr
 50 55 60

25 Phe Asn Leu Phe Ser Thr Lys Asn Ser Ser Ala Ala Trp Asp Glu Thr
 65 70 75 80

Leu Leu Glu Lys Phe Ser Thr Glu Leu Tyr Gln Gln Leu Asn Glu Leu
 85 90 95

30 Glu Ala Cys Val Ile Gln Glu Val Gly Val Glu Glu Thr Pro Leu Met
 100 105 110

Asn Glu Asp Ser Ile Leu Ala Val Lys Lys Tyr Phe Gln Arg Ile Thr
 115 120 125

35 Leu Tyr Leu Thr Glu Lys Lys Tyr Ser Pro Cys Ser Trp Glu Val Val
 130 135 140

40 Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys
 145 150 155 160

Arg Leu Arg Arg Lys Glu
 165

45 <210> 39
 <211> 166
 <212> PRT
 <213> Artificial Sequence

50 <220>
 <223> Description of Artificial Sequence: Synthetic amino acid

<220>
 <223> Clone ID 2DA4

55 <400> 39
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Leu Leu Ala Gln Met Gly Arg Ile Ser Pro Phe Ser Cys Leu Lys Asp
 20 25 30
 5 Arg Gln Asp Phe Gly Phe Pro Gln Glu Glu Phe Asp Ser Asn Gln Phe
 35 40 45
 Gln Lys Ala Gln Ala Ile Ser Val Leu His Glu Met Met Gln Gln Thr
 50 55 60
 10 Phe Asn Leu Phe Ser Thr Lys Asp Ser Ser Ala Ala Trp Asp Glu Thr
 65 70 75 80
 Leu Leu Glu Lys Phe Ser Thr Glu Leu Tyr Gln Gln Leu Asn Asp Leu
 85 90 95
 15 Glu Ala Cys Val Ile Gln Glu Val Gly Val Glu Glu Thr Pro Leu Met
 100 105 110
 20 Asn Val Asp Ser Ile Leu Ala Val Arg Lys Tyr Phe Gln Arg Ile Thr
 115 120 125
 Leu Tyr Leu Ile Glu Arg Lys Tyr Ser Pro Cys Ala Trp Glu Val Val
 130 135 140
 25 Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys
 145 150 155 160
 30 Arg Leu Arg Arg Lys Glu
 165
 <210> 40
 <211> 166
 35 <212> PRT
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 40 <220>
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 <400> 40
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 1 5 10 15
 Leu Leu Ala Gln Met Gly Arg Ile Ser Pro Phe Ser Cys Leu Lys Asp
 20 25 30
 50 Arg Tyr Asp Phe Gly Phe Pro Gln Glu Glu Phe Asp Gly Asn Gln Phe
 35 40 45
 Gln Lys Ala Gln Ala Ile Ser Val Leu His Glu Met Ile Gln Gln Thr
 50 55 60
 55 Phe Asn Leu Phe Ser Thr Lys Asp Ser Ser Ala Ala Trp Asp Glu Thr
 65 70 75 80

Leu Leu Glu Lys Phe Ser Thr Glu Leu Tyr Gln Gln Leu Asn Asp Leu
 85 90 95
 5 Glu Ala Cys Val Ile Gln Glu Val Gly Val Glu Glu Thr Pro Leu Met
 100 105 110
 Asn Glu Asp Ser Ile Leu Ala Val Lys Lys Tyr Phe Gln Arg Ile Thr
 115 120 125
 10 Leu Tyr Leu Ile Glu Arg Lys Tyr Ser Pro Cys Ala Trp Glu Val Val
 130 135 140
 Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys
 145 150 155 160
 15 Arg Leu Arg Arg Lys Glu
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 20 <210> 41
 <211> 166
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 25 <220>
 <223> Description of Artificial Sequence: Synthetic amino acid
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 30 <400> 41
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 35 Leu Leu Ala Gln Met Gly Arg Ile Ser Pro Phe Ser Cys Leu Lys Asp
 20 25 30
 Arg Tyr Asp Phe Gly Phe Pro Gln Glu Glu Phe Asp Gly Asn Gln Phe
 35 40 45
 40 Gln Lys Ala Gln Ala Ile Ser Val Leu His Glu Met Ile Gln Gln Thr
 50 55 60
 Phe Asn Leu Phe Ser Thr Lys Asp Ser Ser Ala Ala Trp Asp Glu Thr
 65 70 75 80
 45 Leu Leu Glu Lys Phe Ser Thr Glu Leu Tyr Gln Gln Leu Asn Asp Leu
 85 90 95
 50 Glu Ala Cys Val Ile Gln Glu Val Gly Val Glu Glu Thr Pro Leu Met
 100 105 110
 Asn Val Asp Ser Ile Leu Ala Val Arg Lys Tyr Phe Gln Arg Ile Thr
 115 120 125
 55 Leu Tyr Leu Ile Glu Arg Lys Tyr Ser Pro Cys Ala Trp Glu Val Val
 130 135 140
 Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys
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145 150 155 160

Arg Leu Arg Arg Lys Glu
165

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<210> 42
<211> 166
<212> PRT

10 <213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic amino acid

15 <220>
<223> Clone ID 2CA5

<400> 42
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1 5 10 15

Leu Leu Ala Gln Met Gly Arg Ile Ser Pro Phe Ser Cys Leu Lys Asp
20 25 30

25 Arg Gln Asp Phe Gly Phe Pro Gln Glu Glu Phe Asp Gly Asn Arg Phe
35 40 45

Gln Lys Ala Gln Ala Ile Ser Val Leu His Glu Met Ile Gln Gln Thr
50 55 60

30 Phe Asn Leu Phe Ser Thr Lys Asn Ser Ser Ala Ala Trp Glu Gln Ser
65 70 75 80

35 Leu Leu Glu Lys Phe Ser Thr Glu Leu Tyr Gln Gln Leu Asn Asp Leu
85 90 95

Glu Ala Cys Val Ile Gln Glu Val Gly Val Glu Glu Thr Pro Leu Met
100 105 110

40 Asn Glu Asp Ser Ile Leu Ala Val Lys Lys Tyr Phe Gln Arg Ile Thr
115 120 125

Leu Tyr Leu Ile Glu Arg Lys Tyr Ser Pro Cys Ala Trp Glu Val Val
130 135 140

45 Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys
145 150 155 160

50 Arg Leu Arg Arg Lys Glu
165

<210> 43
<211> 166
<212> PRT
<213> Artificial Sequence

55

<220>
<223> Description of Artificial Sequence: Synthetic amino acid

<220>

<223> Clone ID 2G6

5 <400> 43
Cys Asp Leu Pro Gln Thr His Ser Leu Gly Asn Arg Arg Ala Leu Ile
1 5 10 15
10 Leu Leu Ala Gln Met Gly Arg Ile Ser Pro Phe Ser Cys Leu Lys Asp
20 25 30
Arg His Asp Phe Gly Phe Pro Gln Glu Glu Phe Asp Gly Asn Gln Phe
35 40 45
15 Gln Lys Ala Gln Ala Ile Ser Val Leu His Glu Met Ile Gln Gln Thr
50 55 60
Phe Asn Leu Phe Ser Thr Lys Asp Ser Ser Ala Thr Trp Glu Gln Ser
65 70 75 80
20 Leu Leu Glu Lys Phe Ser Thr Glu Leu Asn Gln Gln Leu Asn Asp Leu
85 90 95
25 Glu Ala Cys Val Ile Gln Glu Val Gly Val Glu Glu Thr Pro Leu Met
100 105 110
Asn Val Asp Pro Ile Leu Ala Val Lys Lys Tyr Phe Gln Arg Ile Thr
115 120 125
30 Leu Tyr Leu Thr Glu Lys Lys Tyr Ser Pro Cys Ala Trp Glu Val Val
130 135 140
Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys
145 150 155 160
35 Arg Leu Arg Arg Lys Glu
165

40 <210> 44
<211> 166
<212> PRT
<213> Artificial Sequence

45 <220>
<223> Description of Artificial Sequence: Synthetic amino acid
<220>
<223> Clone ID 3AH7

50 <400> 44
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1 5 10 15
55 Leu Leu Ala Gln Met Arg Arg Ile Ser Pro Phe Ser Cys Leu Lys Asp
20 25 30
Arg His Asp Phe Gly Phe Pro Gln Glu Glu Phe Asp Ser Asn Gln Phe
35 40 45

Gln Lys Ala Gln Ala Ile Ser Val Leu His Glu Met Ile Gln Gln Thr
 50 55 60
 5 Phe Asn Leu Phe Ser Thr Lys Asp Ser Ser Ala Ala Trp Glu Gln Ser
 65 70 75 80
 Leu Leu Glu Lys Phe Ser Thr Glu Leu His Gln Gln Leu Asn Glu Leu
 85 90 95
 10 Glu Ala Cys Val Val Gln Glu Val Gly Val Glu Glu Thr Pro Leu Met
 100 105 110
 Asn Glu Asp Ser Ile Leu Ala Val Lys Lys Tyr Leu Gln Arg Ile Thr
 115 120 125
 15 Leu Tyr Leu Thr Glu Lys Lys Tyr Ser Pro Cys Ala Trp Glu Val Val
 130 135 140
 20 Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys
 145 150 155 160
 Arg Leu Arg Arg Lys Glu
 165
 25
 <210> 45
 <211> 166
 <212> PRT
 30 <213> Artificial Sequence
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 <223> Description of Artificial Sequence: Synthetic amino acid
 35 <220>
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 <400> 45
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 40 1 5 10 15
 Leu Leu Ala Gln Met Gly Arg Ile Ser Pro Phe Ser Cys Leu Lys Asp
 20 25 30
 45 Arg Gln Asp Phe Gly Phe Pro Gln Glu Glu Phe Asp Gly Asn Gln Phe
 35 40 45
 Gln Lys Ala Gln Ala Ile Ser Val Leu His Glu Met Ile Gln Gln Thr
 50 55 60
 50 Phe Asn Leu Phe Ser Thr Lys Asp Ser Ser Ala Ala Trp Glu Gln Ser
 65 70 75 80
 Leu Leu Glu Lys Phe Ser Thr Glu Leu Tyr Gln Gln Leu Asn Asp Leu
 85 90 95
 55 Glu Ala Cys Val Ile Gln Glu Val Gly Val Glu Glu Thr Pro Leu Met
 100 105 110

Asn Val Asp Ser Ile Leu Ala Val Arg Lys Tyr Phe Gln Arg Ile Thr
 115 120 125
 5 Leu Tyr Leu Ile Glu Arg Lys Tyr Ser Pro Cys Ala Trp Glu Val Val
 130 135 140
 Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys
 145 150 155 160
 10 Arg Leu Arg Arg Lys Glu
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 1 5 10 15
 30 Leu Leu Ala Gln Met Gly Arg Ile Ser Pro Phe Ser Cys Leu Lys Asp
 20 25 30
 Arg Tyr Asp Phe Gly Phe Pro Gln Glu Glu Phe Asp Gly Asn Gln Phe
 35 35 40 45
 35 Gln Lys Ala Gln Ala Ile Ser Val Leu His Glu Met Ile Gln Gln Thr
 50 55 60
 Phe Asn Leu Phe Ser Thr Lys Asp Ser Ser Ala Ala Trp Glu Gln Ser
 40 65 70 75 80
 Leu Leu Glu Lys Phe Ser Thr Glu Leu Tyr Gln Gln Leu Asn Asp Leu
 85 90 95
 45 Glu Ala Cys Val Ile Gln Glu Val Gly Val Glu Glu Thr Pro Leu Met
 100 105 110
 Asn Val Asp Ser Ile Leu Ala Val Arg Lys Tyr Phe Gln Arg Ile Thr
 115 120 125
 50 Leu Tyr Leu Ile Glu Arg Lys Tyr Ser Pro Cys Ala Trp Glu Val Val
 130 135 140
 Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys
 145 150 155 160
 55 Arg Leu Arg Arg Lys Glu
 165

<210> 47
 <211> 166
 <212> PRT
 <213> Artificial Sequence

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<220>
 <223> Description of Artificial Sequence: Synthetic amino acid

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<220>
 <223> Clone ID 1F3

<400> 47
 Cys Asp Leu Pro Gln Thr His Ser Leu Gly Asn Arg Arg Ala Leu Ile
 1 5 10 15

15

Leu Leu Gly Gln Met Gly Arg Ile Ser His Phe Ser Cys Leu Lys Asp
 20 25 30

20

Arg His Asp Phe Gly Phe Pro Gln Glu Glu Phe Asp Gly Asn Gln Phe
 35 40 45

Gln Lys Ala Gln Ala Ile Ser Val Leu His Glu Met Ile Gln Gln Thr
 50 55 60

25

Phe Asn Leu Phe Ser Thr Lys Asp Ser Ser Val Ala Trp Asp Glu Arg
 65 70 75 80

Leu Leu Asp Lys Leu Tyr Thr Glu Leu Tyr Gln Gln Leu Asn Asp Leu
 85 90 95

30

Glu Ala Cys Val Met Gln Glu Val Trp Val Gly Gly Thr Pro Leu Met
 100 105 110

35

Asn Glu Asp Ser Ile Leu Ala Val Arg Lys Tyr Phe Gln Arg Ile Thr
 115 120 125

Leu Tyr Leu Thr Glu Lys Lys Tyr Ser Pro Cys Ala Trp Glu Val Val
 130 135 140

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Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys
 145 150 155 160

Arg Leu Arg Arg Lys Glu
 165

45

<210> 48
 <211> 166
 <212> PRT

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<213> Artificial Sequence

<220>
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<220>
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<400> 48
 Cys Asp Leu Pro Gln Thr His Ser Leu Gly Asn Arg Arg Ala Leu Ile

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	Leu Leu Ala	Gln Met Gly	Arg Ile Ser	Pro Phe Ser Cys Leu Lys Asp
		20	25	30
5	Arg Tyr Asp	Phe Gly Phe	Pro Gln Glu	Glu Phe Asp Gly Asn Gln Phe
	35		40	45
10	Gln Lys Ala	Gln Ala Ile	Ser Val Leu	His Glu Ile Met Gln Gln Thr
	50		55	60
	Phe Asn Leu	Phe Ser Thr	Lys Asn Ser	Ser Ala Trp Asp Glu Thr
	65	70		75
15	Leu Leu Glu	Lys Phe Ser	Thr Glu Leu	Tyr Gln Gln Leu Asn Glu Leu
		85		90
	Glu Ala Cys	Val Ile Gln	Gly Val Glu	Glu Thr Pro Leu Met
		100		105
20	Asn Glu Asp	Ser Ile Leu	Ala Val Arg	Lys Tyr Phe Gln Arg Ile Thr
		115		120
	Leu Tyr Leu	Thr Glu Lys	Lys Tyr Ser	Pro Cys Ser Trp Glu Val Val
	130		135	140
25	Arg Ala Glu	Ile Met Arg	Ser Phe Ser	Phe Thr Asn Leu Gln Lys
	145	150		155
30	Arg Leu Arg	Arg Lys Glu		
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	Leu Leu Ala	Gln Met Gly	Arg Ile Ser	Pro Phe Ser Cys Leu Lys Asp
		20		25
50	Arg Tyr Asp	Phe Gly Phe	Pro Gln Glu	Glu Phe Asp Gly Asn Gln Phe
	35		40	45
55	Gln Lys Ala	Gln Ala Ile	Ser Val Leu	His Glu Met Ile Gln Gln Thr
	50		55	60
	Phe Asn Leu	Phe Ser Thr	Lys Asp Ser	Ser Ala Ala Trp Glu Gln Ser
	65	70		75
				80

Leu Leu Glu Lys Phe Ser Thr Gly Leu Tyr Gln Gln Leu Asn Asp Leu
 85 90 95
 5 Glu Ala Cys Val Ile Gln Glu Val Gly Val Glu Glu Thr Pro Leu Met
 100 105 110
 Asn Glu Asp Ser Ile Leu Ala Val Lys Lys Tyr Phe Gln Arg Ile Thr
 115 120 125
 10 Leu Tyr Leu Thr Glu Lys Lys Tyr Ser Pro Cys Ser Trp Glu Val Val
 130 135 140
 Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys
 145 150 155 160
 15 Arg Leu Arg Arg Lys Glu
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 20 <210> 50
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 25 <220>
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 30 <223> Clone ID 3CA1
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 1 5 10 15
 35 Leu Leu Ala Gln Met Gly Arg Ile Ser Pro Phe Ser Cys Leu Lys Asp
 20 25 30
 Arg His Asp Phe Gly Leu Pro Gln Glu Glu Phe Asp Gly Asn Gln Phe
 35 40 45
 40 Gln Lys Ala Gln Ala Ile Ser Val Leu His Glu Met Ile Gln Gln Thr
 50 55 60
 45 Phe Asn Leu Phe Ser Thr Lys Asn Ser Ser Ala Ala Trp Asp Glu Thr
 65 70 75 80
 Leu Leu Glu Lys Phe Ser Thr Glu Leu Tyr Gln Gln Leu Asn Asn Leu
 85 90 95
 50 Glu Ala Cys Val Ile Gln Glu Val Gly Met Glu Glu Thr Pro Leu Met
 100 105 110
 Asn Val Asp Ser Ile Leu Ala Val Lys Lys Tyr Phe Gln Arg Ile Thr
 115 120 125
 55 Leu Tyr Leu Thr Glu Lys Lys Tyr Ser Pro Cys Ala Trp Glu Val Val
 130 135 140

Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys
145 150 155 160

Arg Leu Arg Arg Lys Glu
165

<210> 51
<211> 166
<212> PRT
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<223> Description of Artificial Sequence: Synthetic amino acid

<220>
<223> Clone ID 2F8

<400> 51
Cys Asp Leu Pro Gln Thr His Ser Leu Gly Asn Arg Arg Ala Leu Ile
1 5 10 15

Leu Leu Ala Gln Met Gly Arg Ile Ser Pro Phe Ser Cys Leu Lys Asp
20 25 30

Arg Tyr Asp Phe Gly Phe Pro Gln Glu Glu Phe Asp Gly Asn Gln Phe
35 40 45

Gln Lys Ala Gln Ala Ile Ser Val Leu His Glu Met Met Gln Gln Thr
50 55 60

Phe Asn Leu Phe Ser Thr Lys Asn Ser Ser Ala Ala Trp Asp Glu Thr
65 70 75 80

Leu Leu Glu Lys Phe Ser Thr Glu Leu Tyr Gln Gln Leu Asn Glu Leu
85 90 95

Glu Ala Cys Val Ile Gln Glu Val Gly Val Glu Glu Thr Pro Leu Met
100 105 110

Asn Glu Asp Ser Ile Leu Ala Val Lys Lys Tyr Phe Gln Arg Ile Thr
115 120 125

Leu Tyr Leu Thr Glu Lys Lys Tyr Ser Pro Cys Ser Trp Glu Val Val
130 135 140

Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys
145 150 155 160

Arg Leu Arg Arg Lys Glu
165

<210> 52
<211> 166
<212> PRT
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<220>

<223> Description of Artificial Sequence: Synthetic amino acid

<220>

<223> Clone ID 6CG3

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<400> 52

Cys Asp Leu Pro Gln Thr His Ser Leu Gly Asn Lys Arg Ala Met Met
1 5 10 15

10 Leu Leu Ala Gln Met Gly Arg Thr Ser Pro Phe Ser Cys Leu Lys Asp
20 25 30

Arg His Asp Phe Gly Phe Pro Gln Glu Glu Phe Asp Gly Asn Gln Phe
35 40 45

15 Gln Arg Ala Gln Ala Ile Phe Val Leu His Glu Met Ile Gln Gln Thr
50 55 60

20 Phe Asn Phe Phe Ser Thr Lys Asp Ser Ser Ala Ala Trp Glu Gln Ser
65 70 75 80

Leu Leu Glu Lys Phe Ser Thr Glu Leu Asn Gln Gln Leu Asn Asp Leu
85 90 95

25 Glu Ala Cys Val Ile Gln Glu Val Gly Val Glu Glu Thr Pro Leu Met
100 105 110

Asn Glu Asp Ser Ile Leu Ala Val Lys Lys Tyr Phe Gln Arg Ile Thr
115 120 125

30 Leu Tyr Leu Thr Glu Lys Lys Tyr Ser Pro Cys Ala Trp Glu Val Val
130 135 140

35 Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys
145 150 155 160

Arg Leu Arg Arg Lys Glu
165

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<210> 53

<211> 166

<212> PRT

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Synthetic amino acid

<220>

50 <223> Clone ID 3CG7

<400> 53

Cys Asp Leu Pro Gln Thr His Ser Leu Gly Asn Ser Arg Ala Leu Met
1 5 10 15

55

Leu Leu Ala Gln Met Gly Arg Ile Ser Pro Phe Ser Cys Leu Lys Asp
20 25 30

Arg His Asp Phe Gly Phe Pro Gln Glu Glu Phe Asp Gly Asn Gln Phe

35

40

45

Gln Lys Ala Gln Ala Ile Ser Ala Phe His Glu Met Ile Gln Gln Thr
50 55 60

5

Phe Asn Leu Phe Ser Thr Lys Asp Ser Ser Ala Ala Trp Glu Gln Asn
65 70 75 80

10

Leu Leu Glu Lys Phe Ser Thr Glu Leu Tyr Gln Gln Leu Asn Asn Leu
85 90 95

Glu Ala Cys Val Ile Gln Glu Val Gly Met Glu Glu Thr Pro Leu Met
100 105 110

15

Asn Val Asp Ser Ile Leu Ala Val Arg Lys Tyr Phe Gln Arg Ile Thr
115 120 125

Leu Tyr Leu Ile Glu Arg Lys Tyr Ser Pro Cys Ala Trp Glu Val Val
130 135 140

20

Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys
145 150 155 160

25

Arg Leu Arg Arg Lys Glu
165

30

<210> 54
<211> 166
<212> PRT
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<220>
<223> Description of Artificial Sequence: Synthetic amino acid

<220>
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<400> 54
Cys Asp Leu Pro Gln Thr His Ser Leu Gly Asn Arg Arg Ala Leu Ile
1 5 10 15

Leu Leu Ala Gln Met Gly Arg Ile Ser His Phe Ser Cys Leu Lys Asp
20 25 30

45

Arg His Asp Phe Gly Phe Pro Gln Glu Glu Phe Asp Gly His Gln Phe
35 40 45

50

Gln Lys Thr Gln Ala Ile Ser Val Leu His Glu Met Ile Gln Gln Thr
50 55 60

Phe Asn Leu Phe Ser Thr Lys Asp Ser Ser Ala Ala Trp Glu Gln Ser
65 70 75 80

55

Leu Leu Glu Lys Phe Ser Thr Glu Leu Tyr Gln Gln Leu Asn Asp Leu
85 90 95

Glu Ala Cys Val Ile Gln Glu Val Gly Val Glu Glu Thr Pro Leu Met
100 105 110

Asn Glu Asp Ser Ile Leu Ala Val Lys Lys Tyr Phe Gln Arg Ile Thr
 115 120 125

5 Leu Tyr Leu Met Glu Lys Lys Tyr Ser Pro Cys Ala Trp Glu Val Val
 130 135 140

Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys
 145 150 155 160

10 Arg Leu Arg Arg Lys Glu
 165

15 <210> 55
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 <212> PRT
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20 <220>
 <223> Description of Artificial Sequence: Synthetic amino acid
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25 <400> 55
 Cys Asp Leu Pro Gln Thr His Ser Leu Gly Asn Arg Arg Ala Met Met
 1 5 10 15

30 Leu Leu Ala Gln Met Ser Arg Ile Ser Pro Ser Ser Cys Leu Met Asp
 20 25 30

Arg His Asp Phe Glu Phe Pro Gln Glu Glu Phe Asp Asp Lys Gln Phe
 35 35 40 45

35 Gln Lys Ala Pro Ala Ile Ser Val Leu His Glu Val Ile Gln Gln Thr
 50 55 60

40 Phe Asn Leu Phe Ser Thr Glu Asp Ser Ser Ala Ala Trp Glu Gln Thr
 65 70 75 80

Leu Leu Glu Lys Phe Ser Thr Glu Leu Tyr Gln Gln Leu Asn Asp Leu
 85 90 95

45 Glu Ala Cys Val Met Gln Glu Glu Arg Val Gly Glu Thr Pro Leu Met
 100 105 110

Asn Ala Asp Ser Ile Leu Ala Val Arg Lys Tyr Phe Gln Arg Ile Thr
 115 120 125

50 Leu Tyr Leu Thr Lys Lys Lys Tyr Ser Pro Cys Ser Trp Glu Val Val
 130 135 140

Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys
 145 150 155 160

55 Arg Leu Arg Arg Lys Glu
 165

<210> 56
 <211> 166
 <212> PRT
 5 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: Synthetic amino acid

 10 <220>
 <223> Clone ID 1A1

 <400> 56
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 1 5 10 15
 Leu Leu Ala Gln Met Gly Arg Ile Ser His Phe Ser Cys Leu Lys Asp
 20 25 30
 20 Arg Tyr Asp Phe Gly Phe Pro Gln Glu Val Phe Asp Gly Asn Gln Phe
 35 40 45
 Gln Lys Ala Gln Ala Ile Ser Ala Phe His Glu Met Met Gln Gln Thr
 50 55 60
 25 Phe Asn Leu Phe Ser Thr Glu Asp Ser Ser Ala Ala Trp Glu Gln Ser
 65 70 75 80
 Leu Leu Glu Lys Phe Ser Thr Glu Leu His Gln Gln Leu Asn Asp Leu
 85 90 95
 Glu Ala Cys Val Ile Gln Glu Val Gly Val Glu Glu Thr Pro Leu Met
 100 105 110
 35 Asn Glu Asp Ser Ile Leu Ala Val Arg Lys Tyr Phe Gln Arg Ile Thr
 115 120 125
 Leu Tyr Leu Met Glu Lys Lys Tyr Ser Pro Cys Ala Trp Glu Val Val
 130 135 140
 40 Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys
 145 150 155 160
 Arg Leu Arg Arg Lys Glu
 165

 50 <210> 57
 <211> 166
 <212> PRT
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 <223> Description of Artificial Sequence: Synthetic amino acid

 55 <220>
 <223> Clone ID 1D10

 <400> 57

Cys Asp Leu Pro Gln Thr His Ser Leu Gly Asn Arg Arg Ala Leu Ile
 1 5 10 15
 5 Leu Leu Ala Gln Met Gly Arg Ile Ser Pro Phe Ser Cys Leu Lys Asp
 20 25 30
 Arg His Asp Phe Arg Phe Pro Gln Glu Glu Phe Asp Gly Asn Gln Leu
 35 40 45
 10 Gln Lys Thr Gln Ala Ile Ser Val Leu His Glu Met Ile Gln Gln Thr
 50 55 60
 Phe Asn Leu Phe Ser Thr Lys Asp Ser Ser Ala Thr Trp Glu Gln Ser
 65 70 75 80
 15 Leu Leu Glu Lys Phe Ser Thr Glu Leu Asn Gln Gln Leu Asn Asp Leu
 85 90 95
 20 Glu Ala Cys Val Ile Gln Gly Val Gly Val Glu Glu Thr Pro Pro Met
 100 105 110
 Asn Val Asp Ser Ile Leu Ala Val Lys Lys Tyr Phe Gln Arg Ile Thr
 115 120 125
 25 Leu Tyr Leu Thr Glu Lys Lys Tyr Ser Pro Cys Ala Trp Glu Val Val
 130 135 140
 Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys
 145 150 155 160
 30 Arg Leu Arg Arg Lys Glu
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 35 <210> 58
 <211> 166
 <212> PRT
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 40 <220>
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 45 <400> 58
 Cys Asp Leu Pro Gln Thr His Ser Leu Gly Asn Arg Arg Thr Leu Met
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 50 Ile Met Ala Gln Met Gly Arg Ile Ser Pro Phe Ser Cys Leu Lys Asp
 20 25 30
 Arg His Asp Phe Gly Phe Pro Gln Glu Glu Phe Asp Gly Asn Gln Phe
 35 40 45
 55 Gln Lys Ala Gln Ala Ile Ser Val Leu His Glu Met Ile Gln Gln Thr
 50 55 60
 Phe Asn Leu Phe Ser Thr Lys Asp Ser Ser Ala Thr Trp Glu Gln Ser

	65					70								75					80
	Leu	Leu	Glu	Lys	Phe	Ser	Thr	Glu	Leu	Asn	Gln	Gln	Leu	Asn	Asp	Leu			
					85									90					
5	Glu	Ala	Cys	Val	Ile	Gln	Glu	Ala	Gly	Val	Glu	Glu	Thr	Pro	Leu	Met			
				100					105					110					
10	Asn	Val	Asp	Ser	Ile	Leu	Ala	Val	Lys	Lys	Tyr	Phe	Gln	Arg	Ile	Thr			
			115					120					125						
	Leu	Tyr	Leu	Thr	Glu	Lys	Lys	Tyr	Ser	Pro	Cys	Ala	Trp	Glu	Val	Val			
			130				135						140						
15	Arg	Ala	Glu	Ile	Met	Arg	Ser	Phe	Ser	Phe	Ser	Thr	Asn	Leu	Gln	Lys			
						150						155				160			
	Arg	Leu	Arg	Arg	Lys	Glu													
					165														
20																			
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	<211>	166																	
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25	<213>	Artificial Sequence																	
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	1				5					10					15				
	Leu	Leu	Ala	Gln	Met	Gly	Arg	Ile	Ser	His	Phe	Ser	Cys	Leu	Lys	Asp			
				20					25					30					
40	Arg	Tyr	Asp	Phe	Gly	Phe	Pro	Gln	Glu	Val	Phe	Asp	Gly	Asn	Gln	Phe			
			35					40					45						
	Gln	Lys	Ala	Gln	Ala	Ile	Ser	Ala	Phe	His	Glu	Met	Ile	Gln	Gln	Thr			
			50				55					60							
45	Phe	Asn	Leu	Phe	Ser	Thr	Lys	Asp	Ser	Ser	Ala	Thr	Trp	Glu	Gln	Ser			
			65			70					75					80			
	Leu	Leu	Glu	Lys	Phe	Ser	Thr	Glu	Leu	Tyr	Gln	Gln	Leu	Asn	Asn	Leu			
				85						90									
50	Glu	Ala	Cys	Val	Ile	Gln	Glu	Val	Gly	Val	Glu	Glu	Thr	Pro	Leu	Met			
				100					105					110					
55	Asn	Glu	Asp	Ser	Ile	Leu	Ala	Val	Arg	Lys	Tyr	Phe	Gln	Arg	Ile	Thr			
			115					120											

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Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys
145 150 155 160

5 Arg Leu Arg Arg Lys Glu
165

<210> 60
<211> 166
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15 <220>
<223> Description of Artificial Sequence: Synthetic amino acid

<220>
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20 <400> 60
Cys Asp Leu Pro Gln Thr His Ser Leu Gly Asn Arg Arg Ala Leu Ile
1 5 10 15

25 Leu Leu Ala Gln Met Gly Arg Ile Ser Pro Phe Ser Cys Leu Lys Asp
20 25 30

Arg His Asp Phe Gly Phe Pro Gln Glu Glu Phe Asp Gly Asn Gln Ser
35 40 45

30 Gln Lys Ala Gln Ala Ile Ser Val Leu His Glu Met Ile Gln Gln Thr
50 55 60

Phe Asn Leu Phe Ser Thr Lys Asp Ser Ser Asp Thr Trp Asp Ala Thr
65 70 75 80

35 Leu Leu Glu Lys Phe Ser Thr Glu Leu Asn Gln Gln Leu Asn Asp Leu
85 90 95

40 Glu Ala Cys Val Ile Gln Glu Val Gly Val Glu Glu Thr Pro Leu Met
100 105 110

Asn Val Asp Ser Ile Leu Ala Val Lys Lys Tyr Phe Gln Arg Ile Thr
115 120 125

45 Leu Tyr Leu Thr Glu Lys Lys Tyr Ser Pro Cys Ala Trp Glu Val Val
130 135 140

Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys
145 150 155 160

50 Arg Leu Arg Arg Lys Glu
165

55 <210> 61
<211> 166
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic amino acid

<220>

<223> Clone ID 2D1

<400> 61

Cys Asp Leu Pro Gln Thr His Ser Leu Gly Asn Arg Arg Ala Leu Ile
 1 5 10 15

Leu Leu Ala Gln Met Arg Arg Ile Ser Pro Phe Ser Cys Leu Lys Asp
 20 25 30

Arg His Asp Phe Gly Phe Pro Gln Glu Glu Phe Asp Gly Asn Gln Phe
 35 40 45

Gln Lys Ala Gln Ala Ile Ser Ala Phe His Glu Met Ile Gln Gln Thr
 50 55 60

Phe Asn Leu Phe Ser Thr Lys Asp Ser Ser Ala Ala Trp Glu Gln Ser
 65 70 75 80

Leu Leu Glu Lys Phe Ser Thr Glu Leu Tyr Gln Gln Leu Asn Asn Leu
 85 90 95

Glu Ala Cys Val Ile Gln Glu Val Gly Met Glu Glu Thr Pro Leu Met
 100 105 110

Asn Glu Asp Ser Ile Leu Ala Val Lys Lys Tyr Phe Gln Arg Ile Thr
 115 120 125

Leu Tyr Leu Thr Glu Lys Lys Tyr Ser Pro Cys Ala Trp Glu Val Val
 130 135 140

Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys
 145 150 155 160

Arg Leu Arg Arg Lys Glu
 165

<210> 62

<211> 166

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic amino acid

<220>

<223> Clone ID 2D10

<400> 62

Cys Asp Leu Pro Gln Thr His Ser Leu Gly Asn Arg Arg Ala Leu Ile
 1 5 10 15

Leu Leu Ala Gln Met Gly Arg Val Ser Pro Phe Ser Cys Leu Lys Asp
 20 25 30

Arg His Asp Phe Gly Phe Pro Gln Glu Glu Phe Asp Gly Asn Gln Phe
 35 40 45
 5 Gln Lys Ala Gln Ala Ile Ser Ala Phe His Glu Met Ile Gln Gln Thr
 50 55 60
 Phe Asn Leu Phe Ser Thr Lys Asp Ser Ser Ala Thr Trp Glu Gln Ser
 65 70 75 80
 10 Leu Leu Glu Lys Phe Ser Thr Glu Leu Tyr Gln Gln Leu Asn Asn Leu
 85 90 95
 Glu Ala Cys Val Ile Gln Glu Val Gly Val Glu Glu Thr Pro Leu Met
 100 105 110
 15 Asn Val Asp Ser Ile Leu Ala Val Lys Lys Tyr Phe Arg Arg Ile Thr
 115 120 125
 20 Leu Tyr Leu Thr Glu Lys Lys Tyr Ser Pro Cys Ala Trp Glu Val Val
 130 135 140
 Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys
 145 150 155 160
 25 Arg Leu Arg Arg Lys Glu
 165
 30 <210> 63
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 35 <220>
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 40 <400> 63
 Cys Asp Leu Pro Gln Thr His Ser Leu Gly Asn Arg Arg Ala Leu Ile
 1 5 10 15
 45 Leu Leu Ala Gln Met Gly Arg Ile Ser Pro Phe Ser Cys Leu Lys Asp
 20 25 30
 Arg His Asp Phe Arg Phe Pro Gln Glu Glu Phe Asp Gly Asn Gln Phe
 35 40 45
 50 Gln Lys Ala Gln Ala Ile Ser Val Leu His Glu Met Ile Gln Gln Thr
 50 55 60
 Phe Asn Leu Phe Ser Thr Lys Asp Ser Ser Ala Thr Trp Glu Gln Ser
 65 70 75 80
 55 Leu Leu Glu Lys Phe Ser Thr Glu Leu Tyr Gln Gln Leu Asn Asn Leu
 85 90 95
 Glu Ala Cys Val Ile Gln Glu Val Gly Val Glu Glu Thr Pro Leu Met

100 105 110
 Asn Val Asp Ser Ile Leu Ala Val Lys Lys Tyr Phe Gln Arg Ile Thr
 115 120 125
 5 Leu Tyr Leu Thr Glu Arg Lys Tyr Ser Pro Cys Ala Trp Glu Val Val
 130 135 140
 10 Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys
 145 150 155 160
 Arg Leu Arg Arg Lys Glu
 165
 15 <210> 64
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 <212> PRT
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 20 <220>
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 25 <223> Clone ID 2D9
 <400> 64
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 30 Leu Leu Ala Gln Met Gly Arg Ile Ser Pro Phe Ser Cys Leu Lys Asp
 20 25 30
 35 Arg His Asp Phe Gly Phe Pro Gln Glu Glu Phe Asp Gly Asn Gln Phe
 35 40 45
 Gln Lys Ala Gln Ala Ile Ser Val Leu His Glu Met Ile Gln Gln Thr
 50 55 60
 40 Phe Asn Leu Phe Ser Thr Lys Asp Ser Ser Ala Thr Trp Glu Gln Ser
 65 70 75 80
 Leu Leu Glu Lys Phe Ser Thr Glu Leu Asn Gln Gln Leu Asn Asp Leu
 85 90 95
 45 Glu Ala Cys Val Ile Gln Glu Val Gly Val Glu Glu Thr Pro Leu Val
 100 105 110
 50 Asn Val Asp Ser Ile Leu Ala Val Lys Lys Tyr Phe Gln Arg Ile Thr
 115 120 125
 Leu Tyr Leu Thr Glu Lys Lys Tyr Ser Pro Cys Ala Trp Glu Val Val
 130 135 140
 55 Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys
 145 150 155 160
 Arg Leu Arg Arg Lys Glu
 165

<210> 65
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 5 <212> PRT
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 <220>
 10 <223> Description of Artificial Sequence: Synthetic amino acid

 <220>
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 20 Arg Gln Asp Phe Gly Phe Pro Gln Glu Glu Phe Asp Gly Asn Gln Phe
 35 40 45
 Gln Lys Ala Gln Ala Ile Ser Val Leu His Glu Met Met Gln Gln Thr
 50 55 60
 25 Phe Asn Leu Phe Ser Thr Lys Asn Ser Ser Ala Ala Trp Glu Gln Ser
 65 70 75 80
 30 Leu Leu Glu Lys Phe Ser Thr Glu Leu His Gln Gln Leu Asn Glu Leu
 85 90 95
 Glu Ala Cys Val Ile Gln Glu Val Gly Val Glu Glu Thr Pro Leu Met
 100 105 110
 35 Asn Val Asp Ser Ile Leu Ala Val Lys Lys Tyr Phe Gln Arg Ile Thr
 115 120 125
 Leu Tyr Leu Ile Glu Arg Lys Tyr Ser Pro Cys Ala Trp Glu Val Val
 130 135 140
 40 Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys
 145 150 155 160
 45 Arg Leu Arg Arg Lys Glu
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20 25 30Arg Tyr Asp Phe Gly Phe Pro Gln Gly Glu Phe Asp Gly Asn Gln Phe
35 40 4510 Gln Lys Ala Gln Ala Ile Ser Val Leu His Glu Met Met Gln Gln Thr
50 55 6015 Phe Asn Leu Phe Ser Thr Lys Asp Ser Ser Ala Trp Glu Gln Ser
65 70 75 80Leu Leu Glu Lys Phe Ser Thr Glu Leu Tyr Arg Gln Leu Asn Asp Leu
85 90 9520 Glu Ala Cys Val Ile Gln Glu Val Gly Val Glu Glu Thr Pro Leu Met
100 105 110Asn Val Asp Ser Ile Leu Ala Val Arg Lys Tyr Phe Gln Arg Ile Thr
115 120 12525 Leu Tyr Leu Thr Glu Lys Lys His Ser Pro Cys Ser Trp Glu Val Val
130 135 14030 Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys
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45 <223> Clone ID 2G11

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35 40 4555 Gln Lys Thr Gln Ala Ile Ser Val Leu His Glu Met Ile Gln Gln Thr
50 55 60

Phe Asn Leu Phe Ser Thr Lys Asp Ser Ser Asp Thr Trp Glu Gln Ser
 65 70 75 80
 5 Leu Leu Glu Lys Phe Tyr Ile Glu Leu Phe Gln Gln Leu Asn Asp Leu
 85 90 95
 Glu Ala Cys Val Ile Gln Glu Val Gly Val Glu Glu Thr Pro Leu Met
 100 105 110
 10 Asn Val Asp Ser Ile Leu Ala Val Arg Lys Tyr Phe Gln Arg Ile Thr
 115 120 125
 Leu Tyr Leu Thr Glu Glu Lys Tyr Ser Pro Cys Ala Trp Glu Val Val
 130 135 140
 15 Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys
 145 150 155 160
 20 Arg Leu Arg Arg Lys Glu
 165
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 40 Arg Tyr Asp Phe Gly Phe Pro Gln Glu Val Phe Asp Gly Asn Gln Phe
 35 40 45
 Gln Lys Ala Gln Ala Ile Phe Leu Phe His Glu Met Met Gln Gln Thr
 50 55 60
 Phe Asn Leu Phe Ser Thr Lys Asn Ser Ser Ala Ala Trp Asp Glu Thr
 65 70 75 80
 50 Leu Leu Asp Lys Phe Tyr Thr Glu Leu Tyr Gln Gln Leu Asn Asp Leu
 85 90 95
 Glu Ala Cys Val Met Gln Glu Gly Arg Val Gly Glu Thr Pro Leu Met
 100 105 110
 55 Asn Ala Asp Ser Ile Leu Ala Val Lys Lys Tyr Phe Arg Arg Ile Thr
 115 120 125
 Leu Tyr Leu Thr Glu Lys Lys Tyr Ser Pro Cys Ala Trp Glu Ala Val
 161

130 135 140

Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys
 145 150 155 160

5 Arg Leu Arg Arg Lys Glu
 165

10 <210> 69
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15 <220>
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20 <220>
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30 Leu Leu Ala Gln Met Gly Arg Ile Ser Pro Phe Ser Cys Leu Lys Asp
 20 25 30

Arg His Asp Phe Gly Phe Pro Gln Glu Glu Phe Asp Gly Asn Gln Phe
 35 40 45

35 Gln Lys Ala Gln Ala Ile Ser Val Leu His Glu Met Ile Gln Gln Thr
 50 55 60

Phe Asn Leu Phe Ser Thr Lys Asp Ser Ser Ala Thr Trp Glu Gln Ser
 65 70 75 80

40 Leu Leu Glu Lys Phe Ser Thr Glu Leu Asn Gln Gln Leu Asn Asp Leu
 85 90 95

45 Glu Ala Cys Val Thr Gln Glu Val Gly Val Glu Glu Thr Pro Leu Met
 100 105 110

Asn Glu Asp Ser Ile Leu Ala Val Lys Lys Tyr Phe Gln Arg Ile Thr
 115 120 125

50 Leu Tyr Leu Thr Glu Lys Lys Tyr Ser Pro Cys Ala Trp Glu Val Val
 130 135 140

Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys
 145 150 155 160

Arg Leu Arg Arg Lys Glu
 165

55 <210> 70
 <211> 166
 <212> PRT
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20 25 30

15 Arg Tyr Asp Phe Gly Phe Pro Gln Glu Glu Phe Asp Gly Asn Gln Leu
35 40 45

Gln Lys Ala Gln Ala Ile Ser Val Leu His Glu Met Ile Gln Gln Thr
50 55 60

20

Phe Asn Leu Phe Ser Thr Lys Asp Ser Ser Ala Ala Trp Glu Gln Ser
65 70 75 80

25

Leu Leu Glu Lys Phe Ser Thr Glu Leu Asn Gln Gln Leu Asn Asp Leu
85 90 95

Glu Ala Cys Val Ile Gln Glu Val Gly Val Glu Glu Thr Pro Leu Met
100 105 110

30

Asn Val Asp Ser Ile Leu Ala Val Lys Lys Tyr Phe Gln Arg Ile Thr
115 120 125

Leu Tyr Leu Thr Glu Arg Lys Tyr Ser Pro Cys Ala Trp Glu Val Val
130 135 140

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Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys
145 150 155 160

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Arg Leu Arg Arg Lys Glu
165

<210> 71

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 Leu Leu Xaa Gln Met Xaa Arg Xaa Ser Xaa Phe Ser Cys Leu Lys Asp
 20 25 30

Arg Xaa Asp Phe Gly Xaa Pro Xaa Glu Glu Phe Asp Xaa Xaa Xaa Phe
 35 40 45
 5 Gln Xaa Xaa Gln Ala Ile Xaa Xaa Xaa His Glu Xaa Xaa Gln Gln Thr
 50 55 60
 Phe Asn Xaa Phe Ser Thr Lys Xaa Ser Ser Xaa Xaa Trp Xaa Xaa Xaa
 65 70 75 80
 10 Leu Leu Xaa Lys Xaa Xaa Thr Xaa Leu Xaa Gln Gln Leu Asn Xaa Leu
 85 90 95
 Glu Ala Cys Val Xaa Gln Xaa Val Xaa Xaa Xaa Xaa Thr Pro Leu Met
 100 105 110
 15 Asn Xaa Asp Xaa Ile Leu Ala Val Xaa Lys Tyr Xaa Gln Arg Ile Thr
 115 120 125
 20 Leu Tyr Leu Xaa Glu Xaa Lys Tyr Ser Pro Cys Xaa Trp Glu Val Val
 130 135 140
 Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys
 145 150 155 160
 25 Arg Leu Arg Arg Lys Glu
 165
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 35 <220>
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 atgggaagaa tctctctctt ctccgtgtctg atggacagac atgactttgg atttccccag 120
 gaggagtttg atgacaacca gttccagaag gctcaagcca tctctgtcct ccatgatgatg 180
 atccaacaga ccttcaatct cttcagcaca aaggactcat ctgctacttg ggatgagaca 240
 45 cttctagaca aattctacac tgaactttac cagcagctga atgacctgga agcctgcgtg 300
 atacaggagg ttgggggtgga agagactccc ctgatgaatg aggactccat cttgggtgtg 360
 aagaaatact tccgaagaat cactctctat ctgacagaga agaaatacac cccttgtgcc 420
 tgggaggttg tcagagcaga aatcatgaga tctttctctt tttaacaaaa cttgcaaaaa 480
 agattaagga ggaaggaa
 50 <210> 73
 <211> 498
 <212> DNA
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 55 <220>
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<223> Clone ID CH1.2

<400> 73

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gaggagtgtg atggcaacca gtccagaag gctcaaggca tctctgtcct ccatgagatg 180
atccagcaga ccttccatct cttcagcaca aaggactcat ctgctacttg ggaacagagc 240
ctcctagaaa aattttccac tgaacttaac cagcagctga atgacctgga agcctgctg 300
10 atacaggagg ttgggggtgga agagactccc ctgatgaatg tggactccat cctggctgtg 360
aagaaatact tccgaagaat cactctttat ctgacagaga agaaatacag cccttgtgtg 420
tgggagggtg tcagagcaga aatcatgaga tctttctctt tttaacaaa cttgcaaaaa 480
agattaagga ggaaggaa 498

<210> 74

<211> 498

<212> DNA

<213> Artificial Sequence

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20 <223> Description of Artificial Sequence: Synthetic DNA

<220>

<223> Clone ID CH1.3

25 <400> 74

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atgggaagaa tctctccttt ctctcgctg aaggacagac atgactttgg atttccctag 120
gaggagtgtg atggcaacca gtccagaag gctcaaggca tctctgtcct ccatgagatg 180
atccagcaga ccttcaatct cttcagcaca aaggactcat ctgctacttg ggaatgagaca 240
cttctagaca aattctacac tgaactttac cagcagctga atgacctgga agcctgtatg 300
atgcaggagg ttggagtgga agacactcct ctgatgaatg tggactctat cctgactgtg 360
agaaaatact ttcgaagaat cactctttat ctgacagaga agaaatacag cccttgtgtg 420
tgggagggtg tcagagcaga aatcatgaga tctttctctt tttaacaaa cttgcaaaaa 480
35 agattaagga ggaaggaa 498

<210> 75

<211> 498

<212> DNA

<213> Artificial Sequence

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40 <223> Description of Artificial Sequence: Synthetic DNA

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45 <223> Clone ID CH1.4

<400> 75

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gaggagtgtg gtggcaacca gtccagaag gctcaaggca tctctgtcct ccatgagatg 180
atccagcaga ccttcaatct cttcagcaca gaggactcat ctgctgtgtg ggaatgagacc 240
ctcctagaca aattctacat tgaacttttc cagcaactga atgacctgga agcctgtgtg 300
atgcaggagg agaggggtgg agaaaactccc ctgatgaatg cggactccat cttggctgtg 360
aagaaatact tccaaagaat cactctttat ctgacagaga agaaatacag cccttgtgtg 420
55 tgggagggtg tcagagcaga aatcatgaga tctttctctt tttaacaaa cttgcaaaaa 480
agattaagga ggaaggaa 498

<210> 76

<211> 498

<212> DNA
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5 <223> Description of Artificial Sequence: Synthetic DNA

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<223> Clone ID CH2.1

10 <400> 76

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atgggaagaa tctctccttt ctccgtgctg aaggacagac atgactttgg atttccctcag 120
gaggagtttg atggcaacca gttccagaag gctcaagcca tctctgtctc ccatgagatg 180
atccagcaga ccttcaatct ctccagcaca aaggactcat ctgctacttg ggatgagaca 240
cttctagaca aattctacac tgaactttac cagcagctga atgacctgga agcctgtatg 300
atacaggagg ttgggttgga agagactccc ctgatgaatg aggactccat cttggctgtg 360
aagaaatact tccgaagaat cactctctat ctgacagaga agaaatacac cccttgtgcc 420
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<210> 77

<211> 498

<212> DNA

<213> Artificial Sequence

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30 <223> Clone ID CH2.2

<400> 77

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gaggagtttg atgacaacca gttccagaag gctcaagcca tctctgtctc ccatgagatg 180
atccaacaga ccttcaatct ctccagcaca aaggactcat ctgctacttg ggatgagaca 240
cttctagaca aattctacac tgaactttac cagcagctga atgacctgga agcctgtatg 300
atgcaggagg ttggagtggga agacactcct ctgatgaatg tggactctat cctgactgtg 360
aagaaatact tccgaagaat cactctttat ctgacagaga agaaatacac cccttgtgcc 420
tgggaggttg tcagagcaga aatcatgaga tctttctctt ttcaacaaa cttgcaaaaa 480
agattaagga ggaaggaa
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<210> 78

<211> 498

45 <212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic DNA

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<220>

<223> Clone ID CH2.3

<400> 78

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gaggagtttg atggcaacca gttccagaag gctcaagcca tctctgtctc ccatgagatg 180
atccagcaga ccttcaatct ctccagcaca aaggactcat ctgctacttg ggatgagaca 240
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atgcaggagg ttggagtggg agacactcct ctgatgaatg aggactccat cttggctgtg 360
aagaaatact tccgaagaat cactctctat ctgacagaga agaaatacag cccttggtgcc 420
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<210> 79
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<212> PRT
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Leu Leu Ala Gln Met Gly Arg Ile Ser Pro Phe Ser Cys Leu Met Asp
20 25 30

Arg His Asp Phe Gly Phe Pro Gln Glu Glu Phe Asp Asp Asn Gln Phe
35 40 45

Gln Lys Ala Gln Ala Ile Ser Val Leu His Glu Met Ile Gln Gln Thr
50 55 60

Phe Asn Leu Phe Ser Thr Lys Asp Ser Ser Ala Thr Trp Asp Glu Thr
65 70 75 80

Leu Leu Asp Lys Phe Tyr Thr Glu Leu Tyr Gln Gln Leu Asn Asp Leu
85 90 95

Glu Ala Cys Val Ile Gln Glu Val Gly Val Glu Glu Thr Pro Leu Met
100 105 110

Asn Glu Asp Ser Ile Leu Ala Val Lys Lys Tyr Phe Arg Arg Ile Thr
115 120 125

Leu Tyr Leu Thr Glu Lys Lys Tyr Ser Pro Cys Ala Trp Glu Val Val
130 135 140

Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys
145 150 155 160

Arg Leu Arg Arg Lys Glu
165

<210> 80
<211> 166
<212> PRT
<213> Artificial Sequence

<220>
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<223> Clone ID CH1.2

<400> 80

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20 25 30
10 Arg His Asp Phe Gly Phe Pro Gln Glu Glu Phe Asp Gly Asn Gln Phe
35 40 45
15 Gln Lys Ala Gln Gly Ile Ser Val Leu His Glu Met Ile Gln Gln Thr
50 55 60
Phe His Leu Phe Ser Thr Lys Asp Ser Ser Ala Thr Trp Glu Gln Ser
65 70 75 80
20 Leu Leu Glu Lys Phe Ser Thr Glu Leu Asn Gln Gln Leu Asn Asp Leu
85 90 95
Glu Ala Cys Val Ile Gln Glu Val Gly Val Glu Glu Thr Pro Leu Met
100 105 110
25 Asn Val Asp Ser Ile Leu Ala Val Lys Lys Tyr Phe Arg Arg Ile Thr
115 120 125
Leu Tyr Leu Thr Glu Lys Lys Tyr Ser Pro Cys Ala Trp Glu Val Val
130 135 140
30 Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys
145 150 155 160
35 Arg Leu Arg Arg Lys Glu
165

<210> 81

<211> 166

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic amino acid

<220>

<223> Clone ID CH1.3

<400> 81

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1 5 10 15
Ile Met Ala Gln Met Gly Arg Ile Ser Pro Phe Ser Cys Leu Lys Asp
20 25 30
55 Arg His Asp Phe Gly Phe Pro Gln Glu Glu Phe Asp Gly Asn Gln Phe
35 40 45

Gln Lys Ala Gln Ala Ile Ser Val Leu His Glu Met Ile Gln Gln Thr
 50 55 60
 5 Phe Asn Leu Phe Ser Thr Lys Asp Ser Ser Ala Thr Trp Asp Glu Thr
 65 70 75 80
 Leu Leu Asp Lys Phe Tyr Thr Glu Leu Tyr Gln Gln Leu Asn Asp Leu
 85 90 95
 10 Glu Ala Cys Met Met Gln Glu Val Gly Val Glu Asp Thr Pro Leu Met
 100 105 110
 Asn Val Asp Ser Ile Leu Thr Val Arg Lys Tyr Phe Arg Arg Ile Thr
 115 120 125
 15 Leu Tyr Leu Thr Glu Lys Lys Tyr Ser Pro Cys Ala Trp Glu Val Val
 130 135 140
 Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys
 145 150 155 160
 Arg Leu Arg Arg Lys Glu
 165
 25 <210> 82
 <211> 166
 <212> PRT
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 30 <220>
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 35 <223> Clone ID CH1.4
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 20 25 30
 Arg His Asp Phe Gly Phe Pro Gln Glu Glu Phe Gly Gly Asn Gln Phe
 35 40 45
 Gln Lys Ala Gln Ala Ile Ser Val Leu His Glu Met Ile Gln Gln Thr
 50 55 60
 50 Phe Asn Leu Phe Ser Thr Glu Asp Ser Ser Ala Trp Asp Glu Thr
 65 70 75 80
 Leu Leu Asp Lys Phe Tyr Ile Glu Leu Phe Gln Gln Leu Asn Asp Leu
 85 90 95
 55 Glu Ala Cys Val Met Gln Glu Glu Arg Val Gly Glu Thr Pro Leu Met
 100 105 110
 Asn Ala Asp Ser Ile Leu Ala Val Lys Lys Tyr Phe Gln Arg Ile Thr
 173

115

120

125

Leu Tyr Leu Thr Glu Lys Lys Tyr Ser Pro Cys Ala Trp Glu Val Val
130 135 140

5

Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys
145 150 155 160

10

Arg Leu Arg Arg Lys Glu
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<210> 83

<211> 166

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<212> PRT

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<223> Description of Artificial Sequence: Synthetic amino acid

<220>

<223> Clone ID CH2.1

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<400> 83

Cys Asp Leu Pro Gln Thr His Ser Leu Gly Asn Arg Arg Thr Leu Met
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Ile Met Ala Gln Met Gly Arg Ile Ser Pro Phe Ser Cys Leu Lys Asp
20 25 30

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Arg His Asp Phe Gly Phe Pro Gln Glu Glu Phe Asp Gly Asn Gln Phe
35 40 45

35

Gln Lys Ala Gln Ala Ile Ser Val Leu His Glu Met Ile Gln Gln Thr
50 55 60

Phe Asn Leu Phe Ser Thr Lys Asp Ser Ser Ala Thr Trp Asp Glu Thr
65 70 75 80

40

Leu Leu Asp Lys Phe Tyr Thr Glu Leu Tyr Gln Gln Leu Asn Asp Leu
85 90 95

Glu Ala Cys Met Ile Gln Glu Val Gly Val Glu Glu Thr Pro Leu Met
100 105 110

45

Asn Glu Asp Ser Ile Leu Ala Val Lys Lys Tyr Phe Arg Arg Ile Thr
115 120 125

50

Leu Tyr Leu Thr Glu Lys Lys Tyr Ser Pro Cys Ala Trp Glu Val Val
130 135 140

Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys
145 150 155 160

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Arg Leu Arg Arg Lys Glu
165

<210> 84

<211> 166
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15 Leu Leu Ala Gln Met Gly Arg Ile Ser Pro Phe Ser Cys Leu Met Asp
 20 25 30

Arg His Asp Phe Gly Phe Pro Gln Glu Glu Phe Asp Asp Asn Gln Phe
 35 40 45

20 Gln Lys Ala Gln Ala Ile Ser Val Leu His Glu Met Ile Gln Gln Thr
 50 55 60

25 Phe Asn Leu Phe Ser Thr Lys Asp Ser Ser Ala Thr Trp Asp Glu Thr
 65 70 75 80

Leu Leu Asp Lys Phe Tyr Thr Glu Leu Tyr Gln Gln Leu Asn Asp Leu
 85 90 95

30 Glu Ala Cys Met Met Gln Glu Val Gly Val Glu Glu Thr Pro Leu Met
 100 105 110

Asn Val Asp Ser Ile Leu Thr Val Lys Lys Tyr Phe Arg Arg Ile Thr
 115 120 125

35 Leu Tyr Leu Thr Glu Lys Lys Tyr Ser Pro Cys Ala Trp Glu Val Val
 130 135 140

40 Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys
 145 150 155 160

Arg Leu Arg Arg Lys Glu
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45 <210> 85
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Ile Met Ala Gln Met Gly Arg Ile Ser Pro Phe Ser Cys Leu Lys Asp
20 25 30

5 Arg His Asp Phe Gly Phe Pro Gln Glu Glu Phe Asp Gly Asn Gln Phe
35 40 45

Gln Lys Ala Gln Ala Ile Ser Val Leu His Glu Met Ile Gln Gln Thr
50 55 60

10 Phe Asn Leu Phe Ser Thr Lys Asp Ser Ser Ala Thr Trp Asp Glu Thr
65 70 75 80

15 Leu Leu Asp Lys Phe Tyr Thr Glu Leu Tyr Gln Gln Leu Asn Asp Leu
85 90 95

Glu Ala Cys Met Met Gln Glu Val Gly Val Glu Glu Thr Pro Leu Met
100 105 110

20 Asn Glu Asp Ser Ile Leu Ala Val Lys Lys Tyr Phe Arg Arg Ile Thr
115 120 125

Leu Tyr Leu Thr Glu Lys Lys Tyr Ser Pro Cys Ala Trp Glu Val Val
130 135 140

25 Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys
145 150 155 160

30 Arg Leu Arg Arg Lys Glu
165

<210> 86
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35 <212> DNA
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<220>
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40 <400> 86
tgcgacttac cacaac 15

<210> 87
45 <211> 26
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<220>
50 <223> Description of Artificial Sequence: Synthetic amino acid

<400> 87
Trp Glu Val Val Arg Ser Glu Ile Met Arg Ser Phe Ser Tyr Ser Thr
1 5 10 15

55 Asn Leu Gln Arg Arg Leu Arg Arg Lys Asp
20 25

<210> 88
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<220>
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Trp Glu Leu Val Arg Ala Glu Ile Val Arg Ser Phe Ser Phe Ser Thr
1 5 10 15

Asn Leu Asn Lys Arg Leu Arg Lys Lys Glu
20 25

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